REMARKS

This amendment is responsive to the prematurely Final Office Action of October 30, 2008. Reconsideration and allowance of claims 1-17 and 20-24 and 26-27 are requested.

The October 30, 2008 Office Action
Was Improperly Made Final

In Amendment B of October 4, 2008, claim 5 was not substantively amended. Specifically, prior to Amendment B, claim 5 depended from claim 3, which depended from claim 2, which depended from claim 1. In Amendment B, claim 5 was placed in independent form including all of the subject matter of its parent claims 1, 2, and 3. No additional subject matter was added and none was deleted. Because a dependent claim is read as including all of the subject matter of its parent claims, it is submitted that the substance of claim 5 was not amended.

Because the substance of claim 5 was not amended, it is submitted that the new ground of rejection which the Examiner applied against claim 5 in the October 30, 2008 Office Action was not necessitated by the Applicant's Amendment B. Because the citation of the new ground of rejection against claim 5 was not necessitated by Amendment B, it is submitted that the Finality of the October 30, 2008 Office Action was premature.

Withdrawal of the Finality of the October 30, 2008 Office Action and entry of present Amendment C is requested.

The Office Action

Claims 1-3, 7-10, 13, 16, 17, 20-22, and 26 stand rejected under 35 U.S.C. § 103 as being unpatentable over Goren (US 7,069,025) in view of Mohseni (US 2005/0048923).

Claims 4-6, 23, 24, and 27 stand rejected under 35 U.S.C. § 103 as being unpatentable over Goren in view of Mohseni, further in view of Diener (US 7,006,838).

Claims 11 and 12 stand rejected under 35 U.S.C. § 103 as being unpatentable over Goren in view of Mohseni, further in view of Rudowicz (US 6,052,561).

Claim 14 stands rejected under 35 U.S.C. § 103 as being unpatentable over Goren *taken alone*.

Claim 15 stands rejected under 35 U.S.C. § 103 as being unpatentable over Goren, in view of Mohseni, further in view of Sanderford (US 5,742,635).

Claims 1-16 Are Patentable
Over the References of Record

Claim 1 calls for applying at least one test prior to processing the signals and in accordance with the applied test, selecting one of a correlation processing operation or a leading edge processing operation.

Goren, as the Examiner concedes, does not disclose this limitation. Figure 15 of Goren, relied upon by the Examiner, demodules, buffers, decodes, buffers, and selects a reference function, i.e., analyzes the decoded signal to detect a favorable pattern (1520-1560). Step (1570) evaluates a correlation function to generate a correlation function quality value. The correlation quality may be quantified using an objective measure such as a signal-to-noise ratio or other suitable index. If the quality is sufficiently high, the estimated time of arrival (TOA) is calculated at (1580) using leading edge detection (1585). Thus, in Goren, there is no test to select between correlation or leading edge processing. Rather, the only test in Goren is to determine whether the received signal has sufficient quality to be processed for time of arrival. As clearly shown in Figure 15, this is a simple yes/no decision, i.e., a good signal/bad signal decision.

In Figure 15 of Goren, relied upon by the Examiner, the correlation processing is always performed. Then, depending on whether the correlation function has sufficient quality, leading edge detection may further be performed. There is no test in Goren which results in selecting one of the correlation processing operation or the leading edge processing operation. Rather, in Goren, in order to determine the estimated time of arrival, Goren must both evaluate a correlation function and perform a leading edge detection routine.

Mohseni does not cure this shortcoming of Goren. Figure 4 of Mohseni discloses a much more elaborate routine for determining whether a received signal is a good signal (particularly a good speech frame) or a bad signal. Mohseni, like Goren, has no test which selects between two processing options. It is submitted

that if one were to incorporate the Figure 4 testing routine of Mohseni into Goren, one would replace box (1575) of Goren with the more sophisticated good signal/bad signal determining routine of Figure 4 of Mohseni. Such a combination would still not test in order to make a selection of one of a correlation processing operation and deleting edge processing operation. Like Figure 15 of Goren, this combination would still not meet the limitations of claim 1.

As the Examiner's explanation of how Mohseni is to be applied is best understood, it appears that the Examiner might be proposing that the evaluation step (402) is a test for signal-to-noise. By contrast, it is submitted that the test for signal-to-noise is performed in step (404), which determines whether the signal-to-noise exceeds a signal-to-noise threshold. Testing a signal-to-noise quantity versus a threshold is the test for acceptable signal-to-noise.

Another interpretation of the Examiner's explanation of the application of Mohseni may be that he is trying to place the signal to noise test (404) somewhere among steps (1510-1560) of Goren. However, it is submitted that such a placement is not taught or fairly suggested by Goren, Mohseni, or the combination thereof. Goren specifically teaches that the signal-to-noise test should be performed at (1575). Mohseni provides no reason to perform the signal-no-noise threshold test (404) earlier in the Goren Figure 15 process than block (1575), particularly since the signal-to-noise test would be performed again at (1575).

Accordingly, it is submitted that claim 1 and claims 2-13, 15, and 16 dependent therefrom distinguish patentably and unobviously over Goren and Mohseni. (If the Examiner persists in rejecting claim 1 on this combination, a clear and complete explanation regarding how and why the Examiner proposes to modify the process of Figure 15 of Goren in light of the process of Figure 4 of Mohseni is requested).

Claim 14 Is Patentable
Over Goren Taken Alone

Claim 14 has been placed in independent form including the subject matter of its parent claim 1. No subject matter has been deleted and none has been added. Claim 14, at lines 4-7, calls for the same testing step as its parent claim 1. In the Office Action of October 30, 2008 at page 3, paragraph 5, lines 13-15, the

Examiner specifically concedes and states that Goren fails to specify this limitation. Because the Examiner has already conceded that this step is not met by Goren, and because the Examiner has further asserted that he needs to rely on Mohseni to show it, it is submitted that Goren is not obvious in the sense of 35 U.S.C. § 103 of Goren taken alone.

An early allowance of claim 14 is requested.

Claim 16

The Applicant has not placed claim 16 in independent form at the present time as the Examiner had required in his objections in order to defer the independent claim fees on this claim until allowable subject matter has been indicated in its parent claim 1. At such time as the Examiner is ready to allow the remaining claims, it is requested that the Examiner telephone to discuss a potential Examiner's Amendments to place claim 16 in independent form and advance the application to allowance.

Claim 17 Distinguishes Patentably Over Goren As Modified by Mohseni

Claim 17 has been amended to reintroduce the word "medium" which was inadvertently cancelled in the second line of claim 17 in the prior amendment. Further, claim 17 has been placed in independent form including method steps based on the method steps of claim 1. With the reintroduction of the term "medium" and placing claim 17 in independent form, it is submitted that the Examiner's objections to claim 17 have been resolved. Further, claim 17 calls for the computer readable medium to carry code which causes the computer to perform the method in which at least one test is applied on the received signals prior to processing the received signals to select among selectable processing operations for processing the signals. Goren does not select among selectable processing operations. Rather, Goren performs the correlation processing (1570) as a predecessor to the testing step (1575) which determines whether or not the leading edge detection process (1585) will be applied to the received signal.

Further claim 17 calls for the selected processing operation to be only one of the correlation processing or leading edge processing. In order to estimate the

time of arrival, Goren must perform both the correlation processing (1570) and the leading edge detection (1585).

Mohseni does not cure this shortcoming of Goren. Mohseni discloses a more elaborate test to test to distinguish between good and bad signals. The test has more elaborate decisions than testing step (1575) of Goren. Mohseni does not cure the shortcomings of Goren discussed above. Accordingly, it is submitted that claim 17 distinguishes patentably and unobviously over the references of record.

Claim 20 Distinguishes Patentably
Over Goren In view of Mohseni

Claim 20 calls for a testing means for testing received radio frequency signals which have not been subject to a correlation processing operation and selecting, based on the testing, one of a correlation processing operation and a leading edge processing operation. By contrast, Goren performs the correlation processing (1570) prior to testing step (1575). Goren merely proposes a more elaborate test for determining whether or not he has a signal which is sufficiently good that a speech frame should go on to the vocoder (318) rather than being discarded as a bad frame.

Because Mohseni does not cure the shortcomings of Goren, it is submitted that claim 20 and claims 21-24 and 26 dependent therefrom distinguish patentably and unobviously over the references of record.

Claim 5 Distinguishes Patentably
Over Goren As Modified By Mohseni,
As Further Modified by Diener

As discussed above, Mohseni fails to cure the shortcomings of Goren in the step of applying the test.

Claim 5 further goes on to describe the test as including the steps of:

determining whether a signal level of the received signals is above a threshold;

selecting the correlation processing operation when the received signal is below the threshold value; and

selecting the leading edge processing operation when a leading edge gradient is below a gradient threshold value.

Again, testing step (1575) of Goren does not select between a correlation processing operation and a leading edge processing operation, much less on the terms described above. Diener, at column 8, lines 41-55 referenced by the Examiner fails to cure these shortcomings. Column 8, lines 41-55 describe an operation in which the receiving device determines what kind of signal is being received, e.g., a frequency hopper, a cordless telephone, Bluetooth™, IEEE 802.11x, infant monitor, etc. It is submitted that if one were to combine the fair teachings of Diener with Figure 15 of Goren, one would perform the step described at column 8, lines 41-55 of Diener immediately after step (1510) of Goren in order to determine whether or not the received signal is one which is suitable for processing. Even if Goren were configured to receive different types of signals and process them differently, a decision block immediately following the received data signal block (1510) of Goren to send the received signal either to block (1520), et al. of Goren or to another processing system, not shown, would not meet the limitations of claim 5. Such a combination would not disclose or fairly suggest applying the above-referenced three-step test to determine whether a signal should be processed with a leading edge processing operation or the correlation processing operation.

Accordingly, it is submitted that claim 5 distinguishes patentably and unobviously over the references of record.

Claim 27 Distinguishes Patentably Over Goren Modified By Mohseni, Further Modified By Diener

Claim 27 calls for a test which includes:

determining whether a signal level of the received signal is above a threshold;

in response to the level of the received signal being below the threshold value, selecting the correlation processing operation;

when the level of the received signal is above the threshold value, testing whether a leading edge gradient is above a gradient threshold value;

in response to the leading edge gradient value being below the gradient threshold value, selecting the leading edge processing operation, and in response to

the leading edge being above the gradient threshold value, selecting the correlation processing operation.

As the Examiner concedes, neither Goren, nor Goren modified by Mohseni disclose such a testing operation. It is submitted that performing a preliminary test as described at column 8, lines 41-55 of Diener to determine what kind of signal has been received would not add these additional testing steps to the Goren/ Mohseni test.

Accordingly, it is submitted that claim 27 distinguishes patentably and unobviously over the references of record.
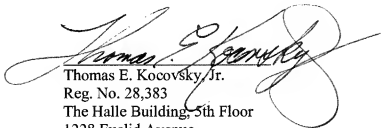
CONCLUSION

For the reasons set forth above, it is submitted that claims 1-17, 20-24, and 26-27 distinguish patentably over the references of record and meet all statutory requirements. An early allowance of all claims is requested.

In the event the Examiner considers personal contact advantageous to the disposition of this case, the Examiner is requested to telephone Thomas Kocovsky at (216) 363-9000.

Respectfully submitted,

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